In the Claims

The following is a complete listing of the claims and replace all prior claims in the application:

1-51. (Canceled)

52. (New) A mounting interface for providing a steadfast relationship between a motor operated at a drive frequency and a baseplate, the mounting interface comprising three surface points having an angular distribution therebetween and providing a minimum planar surface acting as a common boundary between the motor and the baseplate, wherein the angular distribution, size, shape and material of the three surface points affect a vibration mode at a resonant frequency, and wherein at least one of the angular distribution, size, shape and material of the three surface points is configured to shift the resonant frequency away from the drive frequency to minimize vibration.

53. The mounting interface of claim 52, wherein the at least three surface points are coupled to the baseplate.

54. The mounting interface of claim 52, wherein the motor includes a mount flange, wherein the at least three surface points are coupled to the mount flange.

55. The mounting interface of claim 52, wherein the motor includes a mount flange and wherein the at least three surface points provide minimum contact between the mount flange and the baseplate, a configuration of the minimum contact area selected to lower a rigidity of the mount flange and resonant frequencies.

56. The mounting interface of claim 52, wherein the at least three surface points have a surface area, the surface area being chosen to reduce acoustical noise.

57. The mounting interface of claim 52, wherein the at least three surface points are formed using a predetermined material, the predetermined material being chosen to reduce acoustical noise.

58. The mounting interface of claim 52, wherein the at least three surface points are positioned at predetermined radial angles therebetween, the predetermined radial angles being chosen to reduce acoustical noise.

59. A data storage system, comprising:

a storage medium;

an actuator including a transducer disposed at a distal end of an actuator arm;

an actuator motor, coupled to the actuator, for moving the transducer relative to the storage medium;

a baseplate;

a spindle motor for rotating the storage medium;

a mount flange, coupled to the spindle motor, for coupling the spindle motor to the baseplate; and

a mounting interface disposed between the mount flange and the baseplate, the mounting interface providing a steadfast relationship between the spindle motor operated at a drive frequency and the baseplate, the mounting interface comprising three surface points having an angular distribution therebetween and providing a minimum planar surface acting as a common boundary between the motor and the baseplate, wherein the angular distribution, size, shape and material of the three surface points affect a vibration mode at a resonant frequency, and wherein at least one of the angular distribution, size, shape and material of the three surface points is configured to shift the resonant frequency away from the drive frequency to minimize vibration.

60. The data storage system of claim 59, wherein the at least three surface points are coupled to the baseplate.

61. The data storage system of claim 59, wherein the motor includes a mount flange, wherein the at least three surface points are coupled to the mount flange.

62. The data storage system of claim 59, wherein the motor includes a mount flange and wherein the at least three surface points provide minimum contact between the mount flange and the baseplate, a configuration of the minimum contact area selected to lower a rigidity of the mount flange and resonant frequencies.

63. The data storage system of claim 59, wherein the at least three surface points have a surface area, the surface area being chosen to reduce acoustical noise.

64. The data storage system of claim 59, wherein the at least three surface points are formed using a predetermined material, the predetermined material being chosen to reduce acoustical noise.

65. The data storage system of claim 59, wherein the at least three surface points are positioned at predetermined radial angles therebetween, the predetermined radial angles being chosen to reduce acoustical noise.

66. A method for reducing acoustic dynamics of a spindle motor, comprising:

providing a motor operated at a drive frequency;

providing a baseplate;

forming a mounting interface for providing a minimum planar surface acting as a common boundary between the motor and the baseplate and having three surface points having an angular distribution therebetween, wherein the angular distribution, size, shape and material of the three surface points affect a vibration mode at a resonant frequency; and

configuring at least one of the angular distribution, size, shape and material of the three surface points to shift the resonant frequency away from the drive frequency to minimize vibration.

67. The method of claim 66, wherein the forming a mounting interface further comprises forming the mounting interface on the baseplate.

68. The method of claim 66, wherein the forming a mounting interface further comprises forming the mounting interface on a mount flange and coupling the mount flange to the spindle motor.

69. The method of claim 66, wherein the forming a mounting interface further comprises reducing the contact area between a mount flange of the spindle motor and the baseplate to reduced contact area and lower the resonant frequencies.

70. The method of claim 66, wherein the forming a mounting interface further comprises forming at least three surface points having a surface area chosen to reduce acoustical noise.

71. The method of claim 66, wherein the forming a mounting interface further comprises forming at least three surface points using a predetermined material chosen to reduce acoustical noise.

72. The method of claim 66, wherein the forming a mounting interface further comprises forming at least three surface points with a predetermined radial angle between each of the at least three surface points, the predetermined radial angles being chosen to reduce acoustical noise.